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PROJECT NO. 51840

RULEMAKING TO ESTABLISH ELECTRIC WEATHERIZATION STANDARDS	**§ § §**	**PUBLIC UTILITY COMMISSION OF TEXAS**

ENBRIDGE INC.'S RESPONSE
TO STAFF'S DISCUSSION DRAFT AND QUESTIONS FOR COMMENT

Enbridge, Inc. ("Enbridge") appreciates the opportunity to submit its comments on the Commission's proposed new 16 Texas Administrative Code ("TAC") § 25.55, as approved at the August 26, 2021 work session, and is prepared to respond to further inquiries by Staff or comments submitted by other stakeholders. Enbridge is a leading energy infrastructure entity in Texas. We have over 1,400 Houston-based employees and provisioned contractors, and we own and operate significant oil and gas assets in Texas, as well as three wind generation facilities we operate with our partners (Chapman Ranch Wind I, Keechi Wind and Magic Valley Wind). Enbridge would be directly impacted by the proposed regulations.

I. EXECUTIVE SUMMARY

Enbridge herein proposes edits to the draft rule that that would clarify that the weather emergency preparedness standard requires generators take reasonable measures to be able to operate as designed during weather emergencies, in keeping with the requirements of Senate Bill 3.

- (c)(1)(A) should be amended to instead ensure that cold weather critical components "operate as originally designed" during winter weather conditions, acknowledging that no generation equipment can "ensure sustained operation" in all winter weather conditions.
- (c)(1)(B) should be amended to avoid unnecessary administrative burden for ERCOT

and generators alike by accommodating the fact that certain installation and/or upgrade work is subject to manufacturers' maintenance schedules, e.g., phrasing to be amended to "Installation and/or submitted schedule for installation of…"

- (c)(1)(C) should be amended to allow for faults that were due to circumstances outside the equipment's design capabilities and/or where there are no commercially available technologies to address the issue, e.g., icing on turbine blades. For example, "Preparations necessary to prevent reoccurrence of cold weather critical component failures where the component did not operate as designed that occurred between…"
- Enbridge supports the language as drafted in Section (c)(1)(D) insofar as it is intended to provide generation resources flexibility on how to perform the training and what is included in the program. Insofar as the Commission or ERCOT have any specific requirements, those should be specified at the earliest possible opportunity.
- (c)(2)(B) should be amended to allow a member of the Executive Team with proper binding authority over the generation entity to provide the notarized attestation.
- Enbridge appreciates the inclusion in Section (c)(6) of a path for exemptions as there is certain work that is entirely dependent on manufacturers' availability and maintenance schedules. However, more clarity on what documentation is required to apply for the exception is needed. As above, a member of the Executive Team with proper binding authority over the generation entity should be authorized to provide the attestation.

II. INTRODUCTION

Enbridge supports the ongoing success of the Electric Reliability Council of Texas

(ERCOT) market and the establishment of a reliability standard, as set out in Senate Bill 3 (SB 3) of the 87th Texas Legislature, which will help foster a more resilient grid. We share concerns raised by the Advanced Power Alliance (APA) and American Clean Power (ACP) [1] that the proposed rule as drafted creates a performance standard, rather than the weather emergency preparedness standard stipulated in SB 3. Enbridge further agrees with Calpine Corporation's July 30, 2021 comments under this docket that the reliability standard envisioned by SB 3 and under development by the Commission "…is a preparation standard, not a performance standard."[2]

Rather than set out a preparation standard, the Commission's proposed TAC, as drafted, would establish unachievable performance requirements that could inadvertently prevent existing generation resources from participating fully in the ERCOT market, which would create more reliability challenges for the grid. We agree with APA and ACP's July 30, 2021 comments,

> Weatherization standards adopted by the Commission should balance the objectives of SB 3 with the goal of retaining existing generation, incenting new investment and recognizing that generation owners are required to operate their assets in accordance with OEM design criteria. It is imperative that reliability standards are technologically feasible with commercially available solutions.[3]

We herein request that the Commission adopt minor changes to the proposed rule that would clarify that the weather emergency preparedness standard requires generators take reasonable measures to be able to operate as designed during weather emergencies.

Specifically, Enbridge agrees with the APA and ACP previous comments,[4] which highlighted reliability standards approved by the North American Electric Reliability Corporation (NERC) as providing a reliable regulatory framework for weatherization standards that will meet

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[1] See APA-ACP Comments under Docket 51840 (dated September 16, 2021)

[2] See Calpine Corporation's Comments under Docket 51840 (dated July 30, 2021)

[3] See APA-ACP Comments under Docket 51840 (dated July 30, 2021)

[4] See APA-ACP Comments under Docket 51840 (dated June 23, 2021)

the objectives of SB 3. These standards are focused on maintaining weather preparedness plans, based on geographical location and plant configuration, and require annual inspection and maintenance of any cold weather measures and plans established. NERC's reliability standards help limit the duration and/or frequency of outages during extreme weather conditions and help guide generator operators in evaluating and implementing preparedness measures. We believe adoption of NERC standards will help improve the reliability of the ERCOT market.

We further submit that in all cases, preparation measures should be asset-specific, with consideration for region, equipment model, age of the equipment as it relates to availability of upgrades and/or installation of new technology, etc.

Enbridge below provides more detailed comments on the proposed rule.

III. SECTION REVIEW

1. *(c)(1)(A) All preparations necessary to ensure the sustained operation of all cold weather critical components during winter weather conditions, such as chemicals, auxiliary fuels, and other materials, and personnel required to operate the resource;*

Enbridge submits that it is not possible to "ensure sustained operation" of any equipment as, for example, there may be fuel interruptions or extreme conditions that cause unavoidable disruption to the equipment's operation. GE Renewable North America,[5] Vestas American Wind Technology,[6] and Siemens Gamesa Renewable Energy[7] all stated that they do not offer hardware retrofit technology to prevent ice from forming on turbine blades (anti-icing) or to remove ice build-up once it occurs (de-icing), nor do they provide blade coatings. This means that icing is unavoidable in certain extreme conditions.

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[5] See GE Renewable Energy North America's comments under Docket 51840 (dated June 23, 2021)

[6] See Vestas American Wind Technology's comments under Docket 51840 (dated June 23, 2021)

[7] See Siemens Gamesa Renewable Energy's comments under Docket 51840 (dated June 23, 2021)

Furthermore, there may be times where it is necessary to force temporary shutdown of equipment during winter weather conditions for safety reasons. We submit that safety should remain a guiding principle of any winter weather preparedness regulation framework. These shutdowns and icing condition impacts are within the equipment's original design and are part of operating the generation equipment as the manufacturers intended.

There may be preparation measures that generation entities can take to help ensure that equipment performs as designed during extreme winter weather conditions. Enbridge agrees with the Commission that it is reasonable that entities would undertake those preparations and that such preparations could help improve the reliability of the ERCOT market during the winter months. As a result, we support the requirement with the following proposed edits (underlined):

(c)(1)(A) ~~All preparations necessary~~ Winter weather preparedness measures to ensure ~~the sustained operation of all~~ cold weather critical components perform as originally designed during winter weather conditions, such as chemicals, auxiliary fuels, and other materials, and personnel required to operate the resource;

2. (c)(1)(B) Installation of adequate wind breaks for resources susceptible to outages or derates caused by wind; enclosures of sensors for cold weather critical components; inspection of thermal insulation for damage or degradation and repair of any damaged or degraded insulation; confirmation of the operability of instrument air moisture prevention systems; maintenance of freeze protection components for all equipment, including fuel delivery systems the failure of which could cause an outage or derate, and establishment of a schedule for testing of such freeze protection components on a monthly basis; and the installation of monitoring systems for cold weather critical components, including circuitry providing freeze protection or preventing instrument air moisture;

Enbridge expects that the proposed rule above exempts wind generation resources from the requirements for wind breaks and enclosures, as wind generation must be exposed to the wind in order to generate electricity. Insofar as that is correct, we generally support the proposed rule but note that the December 1, 2021 timeframe for installation of certain of these systems that may not already be in place could be very tight or not possible for generation resources. For example,

generating entities are dependent on manufacturers' maintenance schedules and technology development when installing some new systems or technology, as making changes independently could void the warranty and/or damage the equipment.

We appreciate the Commission's inclusion of a Good Cause exception as proposed in the proposed rule but suggest that this could also be accommodated in the above provision by allowing for either installation or a submitted schedule for installation of the components and protections noted above, where the generation entity confirms it is unable to make the change without approval, involvement, and direction of the manufacturer.

As a result, we propose the following changes (underlined),

(c)(1)B) Installation, or submitted schedule for installation where dependent on equipment manufacturer, of adequate wind breaks for resources susceptible to outages or derates caused by wind; enclosures of sensors for cold weather critical components; inspection of thermal insulation for damage or degradation and repair of any damaged or degraded insulation; confirmation of the operability of instrument air moisture prevention systems; maintenance of freeze protection components for all applicable equipment, including fuel delivery systems the failure of which could cause an outage or derate, and establishment of a schedule for testing of such freeze protection components on a monthly basis; and the installation, or submitted schedule for installation where dependent on equipment manufacturer, of monitoring systems for cold weather critical components, including circuitry providing freeze protection or preventing instrument air moisture;

3. *(c)(1)(C) All actions necessary to prevent a reoccurrence of any cold weather critical component failure that occurred in the period between November 30, 2020, and March 1, 2021.*

Enbridge submits that many equipment faults during Winter Storm Uri were caused by conditions that equipment may not have been designed to operate under and for which there is no commercially available technology to address. For example, as noted above, GE, Vestas, and Siemens all stated that they do not offer hardware retrofit technology to prevent ice from forming on turbine blades (anti-icing) or to remove ice build-up once it occurs (de-icing), nor do they

provide blade coatings. This means that icing is unavoidable in certain extreme conditions.

There may be preparation measures generation entities can take to help ensure that equipment performs as designed and intended during extreme winter weather conditions, and Enbridge agrees that it is reasonable that entities would undertake those preparations and that such preparations could help improve the reliability of the ERCOT market during the winter months.

As above, generation entities may be dependent on manufacturer's maintenance and technology cycles for the preparations to ensure that they do not void the warranty and/or damage the equipment. Generation entities should not be required to risk their equipment or warranties in order to meet the December 1, 2021 deadline, as that might inadvertently create additional reliability issues for the grid by either preventing generation resources from participating in the ERCOT market over the winter and/or impacting equipment's reliability.

As a result, we support the requirement with the following proposed edits (underlined):

(c)(1)(C) ~~All actions necessary~~ Preparations that are reasonably expected to prevent a reoccurrence of any cold weather critical component failure where the component did not operate as designed that occurred in the period between November 30, 2020, and March 1, 2021, or a submitted schedule for such preparations where the generation owner is dependent on the equipment manufacturer for such preparations.

4. *(c)(1)(D) Provision of training on winter weather preparations to operational personnel.*

Enbridge generally supports this provision, which is also part of NERC's cold weather preparation standard. We support the language as drafted insofar as it is intended to provide generation resources flexibility on how to perform the training and what is included in the program. If the Commission or ERCOT have any specific requirements, those should be specified at the earliest possible opportunity so that generation entities have time to submit comments on applicability and/or limitations.

5. *(c)(1)(E) Determination of minimum design temperature, minimum operating temperature, and other operating limitations based on temperature, precipitation, humidity, wind speed, and wind direction.*

Enbridge interprets this provision as being intended to allow generation entities to determine only the minimum conditions that apply to the generation resource type, which flexibility we support. Not all of these ambient conditions will impact performance of all generation resource types, or even all equipment types of a particular generation resource. We support the flexibility for generation entities to determine what of the conditions listed above would impact operations and to provide only those details to ERCOT.

As a result, we support the requirement with the following proposed edits (underlined):

(c)(1)(E) Determination of minimum design temperature, minimum operating temperature, and other operating limitations <u>based on, as applicable to the generation resource type and manufacturer design criteria</u>, temperature, precipitation, humidity, wind speed, and wind direction.

6. *(c)(2)(B) Includes a notarized attestation sworn to by the generation entity's highest-ranking representative, official, or officer with binding authority over the generation entity, attesting to the completion of all the activities described in paragraph (1) of this subsection and the accuracy and veracity of the information described in subparagraph (2)(A) of the this subsection.*

Enbridge submits that a member of the executive team with the appropriate binding authority over the generation entity should be authorized to provide this attestation, as there would be no difference to ERCOT's certainty of its veracity and binding nature.

7. *(c)(6) Good cause exception. A generation entity may submit a request for good cause exception with the commission to specific requirements listed in paragraph (1) of this subsection.*

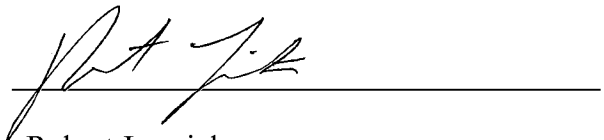
Enbridge appreciates the Commission's inclusion of a path to exceptions to the requirements in paragraph (1) but submits that the Commission could avoid unnecessary proceedings by accepting schedules for compliance with (c)(1)(B) and (c)(1)(C) where the generation entity confirms that it is dependent on the equipment manufacturer for related preparations and the manufacturer confirms it cannot make the December 1, 2021 deadline. Generation entities are often not able to make changes to equipment without the manufacturer or else they would risk voiding the warranty for the equipment, so this exception would ensure the work is done as soon as possible while mitigating the administrative burden of unnecessary good cause exception proceedings for the Commission and ERCOT.

Enbridge also requests further detail on what documentation generating entities would be required to submit under a good cause exception application to the Commission and to ERCOT.

IV. CONCLUSION

Enbridge appreciates the opportunity to submit these comments for the Commission's consideration, and looks forward to continuing to work with all stakeholders in this Project.

Respectfully Submitted,



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